General setup

1. Mount the fixture in the required position using the supplied combi yoke or optional floor plate set (p/n: SSFLP).

Important
- When suspended off ground, always use safety wires rated to a minimum of 53kg (117lbs) at both ends of the fixture through the safety wire holes.
- Do not position the fixture close to fog machines. The fog oil mist will be drawn in by the cooling fans and will short out important components. The warranty will be void for all fixtures returned in such a condition.

2. Connect the power in and DMX in connectors at the left end of the fixture.

3. Where multiple fixtures are to be daisy-chained, connect power out and DMX cables at the right end of the fixture.

Important
- When daisy-chaining fixtures, do not exceed a total load of 3kW in a single daisy chain (subject to supply and cabling restrictions). Each PixelLine 110 fixture has a maximum power requirement of 300 watts.

4. When all fixtures are connected, apply power.

5. Use the control panel to access the internal menu and choose the appropriate operation mode and related settings (see over).

- To optionally clear all previous settings: At the rear panel, press the middle two buttons (↑ and ↓) while the DMX address is displayed (e.g. A001, A002, etc). The four digit display will show FACT then SET to indicate that the fixture has been returned to its default condition.

Operation modes

The PixelLine 110 provides a range of operation modes. These are selected using the ‘MODE’ section of the control menu:

- **DMX**: Allows RGB(A) control of all cells via DMX input. Using the RES (resolution) option you can determine the number of DMX channels required, from 20 channels down to just 3 (the cell sizes and colour permutations are adjusted accordingly). Internal chase effects are not available within this mode.

- **MANU**: Provides RGBA colour mixing independently of any external control. Use the internal control menu (PROG section) to select the required colour values.

- **EF M**: Allows the display of the dual internal chase effects, independently of any external control. Use the internal control menu (PROG section) to select the required chase effects, speeds and cross fades.

- **20+E**: Provides control of RGBA mixing on all 5 cells and selection of the dual internal chase effects via DMX input. Requires 27 DMX channels.

- **4+E**: Provides control of RGBA mixing (the whole fixture acts as a single cell) and selection of the dual internal chase effects via DMX input. Requires 11 DMX channels.

- **16bT**: Allows RGB(A) control via DMX input, using two 8bit channels per colour. The RES and HIINT options determine how many channels are required. Internal chase effects are not available within this mode.

PixelLine 110 personalities are available for a variety of controllers. Please see www.pixelrange.com for details.
General notes
- Ensure that only one DMX device in the chain is set as master (e.g. the lighting desk). This fixture is usually set to slave mode.
- This fixture is shipped with the DMX address set to 00 01.
- The four digit display can be set to switch off when not in use. To restore, press . To alter this mode use: PERS > dISP.

Using the menu
- When not in the menu, the four digit display shows the current DMX address e.g. A001. Some of the display's decimal points are used to indicate status (see below).
- Press  to enter the menu. The four digit display will show Addr.
- Use and  to move between menu options (or to change a value within an option).
- Press  to enter an option (or to fix a changed value within an option and return to the previous option level). Note: If you do not press  to fix a value, operation will revert to the previously set mode at the next power on.
- Press  to exit from a menu option (and eventually exit the menu completely).

Master/slide/data indication
The right hand decimal point (data dot) of the display is used to indicate the master/slide settings and also the presence of a DMX input signal, as shown below:

```
+---------------+------------------+
| Data dot ON   | Master mode      |
| Data dot FLASHING | Slave mode (DMX data input present) |
| Data dot OFF  | Slave mode (no DMX data present) |
+---------------+------------------+
```

Notes:
- Ensure that only one DMX device in the chain is set as master (e.g. the desk).
- Use PERS > dRTA to change between master and slave modes.
- When set to master mode, the fixture will scroll MASTER in place of a DMX address (when not within the menu).
- If the display has been set to auto off (dISP > aFF), the data dot will remain active but at a lower brightness.

Channel layouts within operation modes
See page 4

Dimming options (PERS > dIMR)
You have a choice of dimmer two curve control options:
FINE is the standard setting and is fully compatible with the dimming curves of previous Pixel Range fixtures.
TUNG Alters the dimming response to closely emulate the very smooth action of standard tungsten bulbs. The TUNG setting can be used with all operation modes. However, within the effects modes (EF M, 20+E and 4+E), the TUNG setting will only be effective if the E 1/E2 SPEEd option is less than 25 and the E 1/E2 !FRd option is less than 127.
<table>
<thead>
<tr>
<th>Control menu contents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Addr</strong></td>
</tr>
<tr>
<td><strong>Info</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Prog</strong></td>
</tr>
<tr>
<td></td>
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<tr>
<td><strong>Man</strong></td>
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<td></td>
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<td></td>
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<tr>
<td><strong>Pers</strong></td>
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<tr>
<td></td>
</tr>
</tbody>
</table>

**AddR**
- Sets the base DMX address from which the control channels will begin.

**Info**
- Shows the main processor software revision. No changes are possible within this option.
- Shows the display controller software revision. No changes are possible within this option.

**Prog**
- Selects the primary internal chase effect. See Chase effects for descriptions. Select ModE > EF M to show the selected chase.
- Selects the cross fade speed between the steps of the selected \( E 1 \) chase effect.
- Selects the speed of the selected \( E 1 \) chase effect.
- Selects the master intensity level of chase effects \( E 1 \) and \( E 2 \).

**Man**
- Selects the secondary internal chase effect. See Chase effects for descriptions. Select ModE > EF M to show the selected chase.
- Selects the cross fade speed between the steps of the selected \( E 2 \) chase effect.
- Selects the speed of the selected \( E 2 \) chase effect.

**Pers**
- Sets the red intensity for all cells. Select ModE > MANU (manual) to show the result.
- Sets the green intensity for all cells. Select ModE > MANU (manual) to show the result.
- Sets the blue intensity for all cells. Select ModE > MANU (manual) to show the result.
- Sets the amber intensity for all cells. Select ModE > MANU (manual) to show the result.

**ModE**
- 16bit RGB(A) control for cells using variable DMX channels determined by Pers > RES setting. MINT set on provides master intensity. No chase effects are selectable.
- Displays the resulting RGBA levels (of all cells combined) that are set via the MAN section of the internal menu. External DMX control is not possible in this mode.
- Displays the chase effect(s) determined within the PRoG section. External DMX control is not possible in this mode.

**DMX Ch1 to 20:** RGBA for indiv. cells, Ch21 to 23: C1 Effect, Speed & Xfade, Ch24 to 26: C2 Effect, Speed & Xfade, Ch27: Master intensity.
**DMX Ch1 to 4:** RGBA for all cells, Ch5 to 7: C1 Effect, Speed & Xfade, Ch8 to 10: C2 Effect, Speed & Xfade, Ch11: Master intensity.
16bit RGB(A) control using 2x the number of DMX channels determined by Pers > RES. Pers > MINT set on provides a master intensity. No chase effects are selectable.
Channel layouts within operation modes

These tables show how colour mixing, chase effects and master intensity controls are mapped to DMX channels for each mode that uses an external input. The d11: and 16bT modes do not use chase effects. In all modes, the first channel of the fixture occurs at the DMX address selected using RddP and successive channels for the fixture follow from there.

The first channel of the fixture occurs at the DMX address selected using RddP and successive channels for the fixture follow from there.

Notes:
The P105 > RES option determines the number of channels to use in d11: and 16bT modes (16bT uses twice the number of channels setup within RES). For d11: and 16bT modes, the P105 > MINT option determines whether a master intensity channels should be used.

ModE = d11:
(* Master intensity only when P105 > MINT is set to ah)

ModE = 16bT (16 bit)
(* Master intensity only when P105 > MINT is set to ah)

In each pair of channels for a colour, the first channel provides the high (coarse) 8 bits while the second gives the low (fine) 8 bits

ModE = 20+E
This mode provides a combination of colour mixing and internal effects under the control of a DMX input.

See page 2 (Chase effects) for details of values for C1 and C2 effect channels.

ModE = 4+E
This mode provides a combination of colour mixing and internal effects under the control of a DMX input.

See page 2 (Chase effects) for details of values for C1 and C2 effect channels.
Using master mode to drive other units

This unit can control any number of other Pixel Range fixtures via DMX links, without the need for a control desk.

1. Set this unit as master (PEP > dATA > MAST) and ensure all others are set to slave (PEP > dATA > SLAV). Connect all fixtures via DMX daisy-chain.

2. Set slaves to MAST > cH0. Set the master to either:
   - MAST > EF m and use PROG to choose effects, or
   - MAST > MANU and use MANU to choose colour mix.

3. Use ADDR > cH0 to set slave addresses (the master unit's DMX address is ignored):
   - Effects: 5 cells are output in groups of 4 DMX channels to give RGBA values per cell (20 channels in total). Set the address of each slave fixture according to which of the 5 cells you want them to appear within, or to begin with (for multi-cell fixtures): A001 for cell 1, A005 for cell 2, A009 for cell 3, A013 for cell 4, A017 for cell 5.
   - Colour mix: Set slaves to any addresses on 4 channel boundaries: A001, A005, A009, A013, A017.

Troubleshooting

Fixture remains at blackout when illumination expected

- If the display panel is not showing any indication, even after a button press, check the input power and fuse.
- If live DMX is connected, the right hand decimal point on the display should flash - if not, check the DMX cable and the desk output.
- Check that the selected MAST matches the desk personality being used.
- The master intensity channel for the current mode may be set at zero. For cH0 or 16bt modes, check the setting of PEP > HINT.
- Ensure that only one DMX device is set as master.
- Standalone chase effects: Effects programmed using PPA > c 1 and c 2 but the fixture is not in MAST > EF m mode. Check also that PPA > LEVL is not set at zero.
- Standalone RGBA mixing: Colour values set within MANU section but the fixture is not in MAST > MANU mode.

Fuse access

The single fuse is located next to the power and DMX input connectors. Use a small flat blade screw driver to twist the fuse holder anticlockwise until the carrier can be extracted to reveal the fuse.

Specifications

Dimensions

Weight

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixture alone</td>
<td>10.5kg (23 lbs)</td>
</tr>
<tr>
<td>With combi yoke</td>
<td>11.7kg (25.8 lbs)</td>
</tr>
</tbody>
</table>

Power

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input voltage</td>
<td>90 to 264V AC, 47 to 63Hz autosensing</td>
</tr>
<tr>
<td>Earth leakage</td>
<td>1.61mA</td>
</tr>
<tr>
<td>Connectors:</td>
<td>16 amp CEE Form 2Pole+Earth (input &amp; output)</td>
</tr>
<tr>
<td>Power requirements:</td>
<td>230V/50Hz @ 115V/60Hz</td>
</tr>
<tr>
<td>Standby</td>
<td>20 watts</td>
</tr>
<tr>
<td>Maximum (const.)</td>
<td>300 watts</td>
</tr>
<tr>
<td>Start up (peak*)</td>
<td>128 amps</td>
</tr>
</tbody>
</table>

* The peak value occurs only at first power up and lasts only for a period measured in microseconds. Adjustments may need to be made to supply circuit breakers when multiple fixtures are daisy-chained, causing them all to draw the peak simultaneously.

Approvals

Miscellaneous

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enclosure rating:</td>
<td>IP20 (not protected against moisture ingress)</td>
</tr>
<tr>
<td>Control input:</td>
<td>USITT DMX512 (input connector pin out below)</td>
</tr>
</tbody>
</table>

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